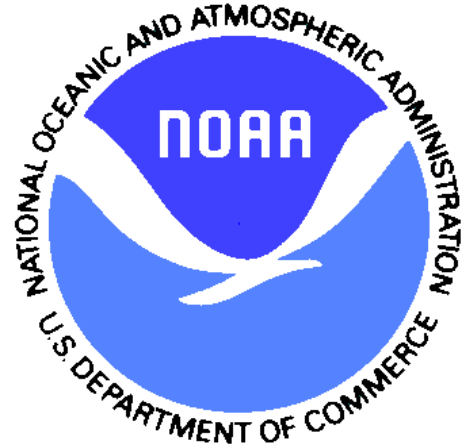# NOAA/CAMS CFS Implementation Compare FIMA ACTDOC and CFS Production Program Module (FINAL)

Version 2.0

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1 Introduction and Purpose

The FIMA automated accounts payable open document conversion involves a reconciliation of document and document detail information in the **FIMA Active Document Status File** (**ACTDOC**) with CFS accounts payable document transaction detail and general ledger information. The applicable FIMA open documents to be reconciled appear in the Conversion Set-up Tables: **Convert ACTDOC** (**CONV_ACTDOC**) and **Convert ACTDOC Accounts** (**CONV_ACTDOC_ACCOUNTS**). NOAA's implementation of CFS accounts payable functionality has included a *phased implementation* of CFS accounts payable-related screens and batch processes. FIMA has remained the system of record for CFS accounts payable document transactions. The CFS-FIMA Interface allows document transaction detail to be entered in CFS and transmitted to FIMA through a batch interface process.

As a result of the CFS accounts payable phased implementation, there are two distinct categories of documents in FIMA ACTDOC:
Category 1: Documents entered in CFS and transmitted to FIMA.
Category 2: Documents not entered in CFS (because they were entered through some other feeder system, or FIMA itself–e.g., the NOAA Payment System 2000).

Because the FIMA to CFS conversion strategy treats only the conversion of open documents, the reconciliation process described here only deals with CFS accounts payable open documents which relate to FIMA ACTDOC accounts payable open documents.

In addition, the Program Module will attempt to reconcile Grants documents (FIMA Document Type '04') for reporting purposes only. Grants data from the Copy of CFS Production will be extracted to CFS Production 2003 based on the logic described in the Extract CFS Production Accounts Receivable, Budget, and Grant Information Program Module.

1.1 Purpose

The purpose of this document is to provide the detailed design for the Compare FIMA ACTDOC and CFS Production Program Module. This Module deals with the reconciliation of FIMA documents which belong to Category 1, described above.

1.2 Naming Standards

The Compare FIMA ACTDOC and CFS Production Program Module adheres to the latest version of the CAMS Support Center (CSC) Programming Standards and Guidelines.

Throughout this document suggested names of objects are consistently formatted in order to make it easier to distinguish what type of object is being referred to in the design. The following table is a list of each object in this document and its corresponding format.

Object	Description
SCREENS	Named in all caps and italics
Field Names	Named in italics with the first letter of each word capitalized
TABLES	Named in all caps and bold
Column Names	Named in bold with the first letter of each word capitalized
FILES	Named in all caps and underlined
variables	Named in all lowercase and underlined

1.3   Process Flow for the Module

Figure 1 contains a high-level functional flow of the steps required to reconcile FIMA ACTDOC document detail summary information with CFS accounts payable document transaction detail.

The process flow begins with crosswalking the FIMA Document Number to CFS. The **Convert ACTDOC** Tables (i.e. Conversion Set-up Tables) and the **CFS-FIMA Interface File** (**FIM_DOC_DETAIL**) provide the input for the crosswalk. The steps in the process flow appear below in italics. Because the 2-Way and No-Match reconciliations require the same functions, these are presented once in the following discussion.

Note: For the purposes of this document, all references to 2-Way Match documents also include 3-Way Match documents.
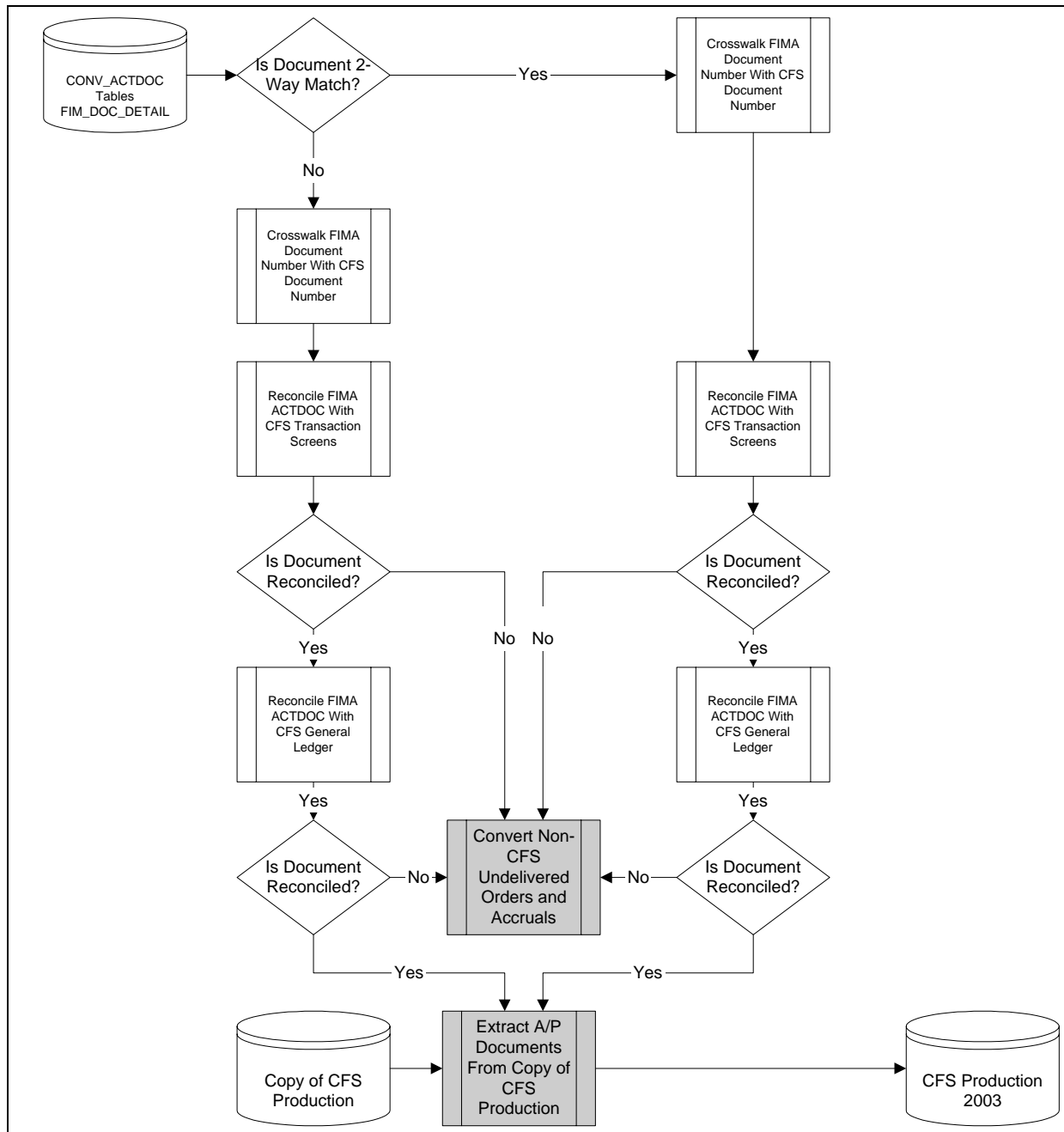
Figure 1. Process Flow for the Module

Is Document 2-Way Match? . Two-Way Match documents involve reconciling the FIMA Undelivered Orders document balance with the CFS undelivered orders document and document general ledger balances. No-Way Match documents involve only reconciling the document's Unpaid Accrued Expenditures balance

between the two systems. This decision point identifies the process path for the document reconciliation: 2-Way Match documents proceed down the right path of Figure 1; No-Match documents proceed down the left path of Figure 1.

Crosswalk FIMA Document Number With CFS Document Number. The CFS-FIMA Interface process creates an interface table which stores both the CFS Document Number and the FIMA Document Number. This process creates the document crosswalk for comparing document information between the two systems.

Reconcile FIMA ACTDOC With CFS Transaction Screens. This function deals with the reconciliation of the FIMA ACTDOC document summary detail with the CFS accounts payable document transaction detail. For 2-Way Match documents, both undelivered orders and unpaid accrued expenditures balances are reconciled. For No-Match documents, only unpaid accrued expenditures balances are reconciled. The reconciliation contains both a document-level open balance and document-detail level open balance reconciliation.

Is Document Reconciled?. If the FIMA ACTDOC document summary detail information reconciles with the CFS accounts payable document transaction detail, the Program Module continues with the reconciliation of FIMA ACTDOC and the CFS document general ledger account balances. If the document does not pass the previous reconciliation, the document will be treated in the Convert Non-CFS Undelivered Orders and Accruals Program Module. In other words, the document will be converted as a Non-CFS document and no CFS history for that document will be preserved.

Reconcile FIMA ACTDOC With CFS General Ledger. In this function, the FIMA ACTDOC document summary detail information is compared to the CFS document general ledger account balances. For 2-Way Match documents, both undelivered orders and unpaid accrued expenditures account balances are reconciled. For No-Match documents, only unpaid accrued expenditures account balances are reconciled. The reconciliation contains both a document-level account balance and document-detail level account balance reconciliation.
Is Document Reconciled?. If a document passes both transaction screen and general ledger reconciliation checks, then the reconciled documents are received as input to the Extract A/P Documents From Copy of CFS Production Program Module. That Module is explained in a separate document.

1.4   Business Rules for the Module

‣   The following FIMA ACTDOC fields provide the basis for the matching
     criteria between FIMA ACTDOC and CFS:

   ‣   **Document Number**
   ‣   **Document Type**
   ‣   **Organization Code**
   ‣   **Task Number**
   ‣   **Phase Number**
   ‣   **Major Object Class**
   ‣   **Minor Object Class**
   ‣   **Undelivered Orders**
   ‣   **Unpaid Accrued Expenditures**

‣   Matching criteria are evaluated at the document level. If a FIMA document
     has been recorded as a 2-Way Match in CFS, then both the **Undelivered
     Orders** (UDO) and **Unpaid Accrued Expenditures** (UAE) money field
     balances are reconciled between the systems. If a document type has
     been recorded as a No-Way Match, then only the FIMA [**Unpaid Accrued
     Expenditures**] money field balance is reconciled with CFS.

‣   In CFS, penalty transactions with CFS Item Type "PEN" are excluded in
     calculating the accrual amount. In FIMA ACTDOC, this transaction appears
     with Major Object Class 43 and Minor Object Class 01. These transactions
     are excluded because the lines are closed in FIMA. Including these
     transactions would create a discrepancy between the FIMA and CFS
     document totals.

1.5   Input to the Module

▸   The **Convert ACTDOC** Tables provide the FIMA input to this Module.
These tables contain the open document information from **FIMA ACTDOC**
for the automated accounts payable open document conversion. Only
documents on **Convert ACTDOC** with an **Error_Flag** of 'N' should be
selected by the module as input.

▸   The following CFS accounts payable transaction screens have been
considered in the FIMA ACTDOC and CFS transaction screen
reconciliation. The tables behind these screens provide the document
detail information required for reconciling the undelivered orders and unpaid
accrued expenditures balances for FIMA documents in Category 1. The
screens include:

   ▸   *PURCHASE ORDER TRANSACTION SCREEN (FM040)*
   ▸   *RECEIVING TICKET TRANSACTION SCREEN (PM030)*
   ▸   *ESTIMATE ACCRUAL TRANSACTION SCREEN (PM050)*
   ▸   *VENDOR INVOICE TRANSACTION SCREEN (PM003)*
   ▸   *OBLIGATION CLOSE/RE-OPEN (FM018)*
   ▸   *REVERSE RECEIVING TICKET TRANSACTION SCREEN (PM034)*
   ▸   *REVERSE ESTIMATE ACCRUAL TRANSACTION SCREEN (PM054)*
   ▸   *VOID VENDOR INVOICE TRANSACTION SCREEN (PM044)*
   ▸   *ADVICE OF CORRECTION TRANSACTION SCREEN (PM006)*
   ▸   *MANUAL VENDOR PAYMENT TRANSACTION SCREEN (PM041)*
   ▸   *PRINT VENDOR INVOICE RELEASE REPORT (PM102)*
   ▸   *CREATE TREASURY DISBURSEMENT TRANSMISSION FILE
        (PM206)*
   ▸   *GENERAL LEDGER TRANSACTION LOOKUP SCREEN (GL081)*

1.6   Processing of the Module

The reconciliation processing follows one of two paths, depending on the CFS
matching associated with the document's entry in CFS.

If a document has been processed as a 2-Way Match, then that document would
appear in the Crosswalk FIMA Document Number With CFS Document Number
Function for 2-Way Match documents and then proceed with the Reconcile FIMA
ACTDOC With CFS Transaction Screens Function for 2-Way Match documents.

If a document has been processed as a No-Match document, then that document would appear in the Crosswalk FIMA Document Number With CFS Document Number Function for No-Match documents and proceed with the Reconcile FIMA ACTDOC With CFS Transaction Screens Function for No-Match documents.

The 2-Way Match path and No-Way Match paths work independently.

2   Reconcile 2-Way Match Documents Path

This path identifies the reconciliation process for CFS documents which have been designated as 2-Way Match documents.

The reconciliation of 2-Way Match documents involves 3 major functions:
- Crosswalk FIMA Document Number With CFS Document Number
- Reconcile FIMA UDO With CFS Transaction Screens
- Reconcile FIMA UDO With CFS General Ledger

2.1   Process Flow for the Reconcile 2-Way Match Documents Path

A process flow for this path is not currently available.

2.2   Crosswalk FIMA Document Number With CFS Document Number

The CFS-FIMA Interface generates a FIMA Document Number and Document Type from a given CFS Document Number and Document Type.   This crosswalk information is stored in the CFS-FIMA Interface Table **FIM_DOC_DETAIL**. The *CFS-FIMA DOCUMENT TYPE SCREEN* (*FIM001*) allows users to identify how the CFS-FIMA Interface generates FIMA Document Numbers for CFS accounts payable document types. In many cases, the FIMA Document Number is based on the CFS Source Reference Number or the CFS Document Number.

2.2.1 *Create Crosswalk Table*

This function creates a temporary table to store the FIMA Document Number and Document Type as well as the corresponding CFS Document Number, Transaction Number, and General Ledger Transaction Number.

2.2.1.1 *Logic*

Create a temporary Oracle table (**CONV_2WAY_RECON**) with the following table description.

Table 1. Table Description for CONV_2WAY_RECON		
Column Name	**Data Type**	**Column Description**
Fima_Document_Type	VARCHAR2(2)	The FIMA Document Type.
Fima_Document_No	VARCHAR2(9)	The FIMA Document Number.
Cfs_Document_No	VARCHAR2(8)	The CFS Document Number (i.e. Obligation Document Number).
Subsystem_Code	VARCHAR2(2)	The Subsystem Code for the transaction (i.e. the CFS module identifier).
Trans_Source	VARCHAR2(6)	The Transaction Source for the transaction (i.e. the CFS screen source identifier).
Gl_Trans_No	NUMBER	The General Ledger Transaction Number.
Trans_No	NUMBER	The Transaction Number.

2.2.1.2 Output

The output of this function is the **CONV_2WAY_RECON** Table.

2.2.2 Insert Crosswalk Data

This function extracts the required data to populate the **CONV_2WAY_RECON** Table, including data from the following **FIM_DOC_DETAIL** fields:

- ‣ **Real_FIMA_Doc_Type**
- ‣ **Real_FIMA_Doc_No**
- ‣ **Doc_No**
- ‣ **Subsystem_Code**
- ‣ **Trans_Source**
- ‣ **GL_Trans_No**
- ‣ **Trans_No**

Note that the selected values correspond with the table description presented in Table 1. The table contains all CFS-FIMA Interface transactions for 2-Way Match documents.

If there is an error in the document type selected for the insert, the **CFS_Document_Type_Error** and the **Error_Flag** on **CONV_ACTDOC** needs to be updated to 'Y' and a row should be written to **CONV_ERRORS** describing the error which has occurred.

2.2.3 *Delete Crosswalked Documents Which Are Closed*

This function deletes the documents in the **CONV_2WAY_RECON** Table which do not appear in the **CONVERT ACTDOC** Tables and which do not have FIMA accounting line conversion errors.

This function also updates the **Convert Errors** Table (**CONV_ERRORS**) with a reconciliation error if the documents to be reconciled contain ACCS conversion errors. The document reconciliation requires that FIMA accounting detail successfully converts to CFS accounting detail.

2.3   **Reconcile FIMA ACTDOC With CFS Transaction Screens**

This function compares the FIMA ACTDOC undelivered orders (UDO) and unpaid accrued expenditures (UAE) balances with the CFS undelivered orders and unpaid accrued expenditures balances at both the document and document detail level. The transaction screen reconciliation compares FIMA ACTDOC document balances with derived balances in the CFS accounts payable transaction screens. If the document balances reconcile (i.e. match), then the Program Module proceeds to the Reconcile FIMA ACTDOC With CFS General Ledger Function. If the document balances do not reconcile, then an error is recorded; these documents would then be handled by the Convert Non-CFS Undelivered Orders and Accruals Program Module.

In CFS, obligation data is entered through the *PURCHASE ORDER TRANSACTION SCREEN* (*FM040*). The total obligated amount for 2-Way Match documents appears in this screen (and its underlying tables).

CFS accrual transactions or adjustments to accrual transactions may occur on transaction screens which involve the processing of receiving reports, invoices, or payments. These screens include:

▸   *RECEIVING TICKET TRANSACTION SCREEN (PM030)*

> ▸ *ESTIMATE ACCRUAL TRANSACTION SCREEN (PM050)*
> ▸ *VENDOR INVOICE TRANSACTION SCREEN (PM003)*
> ▸ *REVERSE RECEIVING TICKET TRANSACTION SCREEN (PM034)*
> ▸ *REVERSE ESTIMATE ACCRUAL TRANSACTION SCREEN (PM054)*
> ▸ *VOID VENDOR INVOICE TRANSACTION SCREEN (PM044)*
> ▸ *ADVICE OF CORRECTION TRANSACTION SCREEN (PM006)*
> ▸ *MANUAL VENDOR PAYMENT TRANSACTION SCREEN (PM041)*
> ▸ *PRINT VENDOR INVOICE RELEASE REPORT (PM102)*
> ▸ *CREATE TREASURY DISBURSEMENT TRANSMISSION FILE (PM206)*

Activity occurring in these screens is reflected on the *VENDOR INVOICE TRANSACTION SCREEN (PM003)* (and its underlying tables). Because this accrual activity is reflected in *PM003*, the CFS total accrued expenditures amount and the total unpaid accrued expenditures amount can be derived using the underlying *PM003* tables.

The total accrued expenditures amount of a CFS document is derived by summing the invoice amounts for all the transactions with a line status "PAID", "INTRAN", or "OPEN".

The total unpaid accrued expenditures amount for a CFS document is derived by summing the invoice amounts for all the transactions with a line status of "OPEN".

The documents included in these calculations must have an approved status, or the documents should be shell invoices that have originated from the receiving ticket or estimated accrual functionality (i.e. the Approved Flag should be "Y" or the **RT_No** should not be null or the **EA_Control_ID** should not be null on **AP_DETAIL**).

2.3.1 *Select Crosswalk Documents for 2-Way Match Document Transaction Reconciliation Processing*

This function selects the information inserted into the **CONV_2WAY_RECON** Table for 2-Way Match document transaction reconciliation processing. It only selects the obligation document records, identified by a Document Source (**FIM_DOC_DETAIL.Doc_Source**) of "OBLIG". [The other transactions provide input to the 2-Way Match CFS general ledger reconciliation.]

2.3.2 *Select the FIMA ACTDOC UDO and UAE of the Document*

This function selects the total undelivered orders balance and unpaid accrued expenditures balance of the document selected in Section 2.3.1.

     ▸   Select the total undelivered orders balance from **Convert ACTDOC** for the current FIMA document.

     ▸   Select the total unpaid accrued expenditures balance from **Convert ACTDOC** for the current FIMA document.

2.3.3 *Select the CFS Total Obligation and Vendor of the Document*

This function selects the CFS total obligation amount and associated vendor of the document selected in Section 2.3.1.

2.3.3.1 *Input*

The Purchase Order Transaction Screen (FM040) tables which hold the total obligation amount include: **PO_CONTROL**, **PO_ITEM**, and **PO_ACCOUNT**.

2.3.3.2 *Logic*

Select the total obligation amount for this CFS document from Purchase Order (PO) Tables. The CFS Document Number is stored in **PO_CONTROL.Document_No**. The module also selects the **Vendor_No** and **Vendor_ID** from the Purchase Order Tables, and updates the related columns on **Convert ACTDOC** with the selected data. See Appendix A for updated information on the approach this function should take for selecting the vendor data.

Note: the document selected should be the latest open approved Change Order Number (**PO_CONTROL.Change_Order_No**).

2.3.4 *Select the CFS Total Accrued Expenditures of the Document*

This function selects the total accrued expenditures of the document selected in Section 2.3.1.

In CFS, when a document is disbursed, the status on the accounts payable invoice is updated to "PAID". If the document is in-transit, the status on the invoice reflects "INTRAN".   If the invoice is approved, the status on the invoice reflects "OPEN".

2.3.4.1 *Input*

The input for this function includes the Vendor Invoice Transaction Screen (PM003) tables: **AP_CONTROL** and **AP_DETAIL**.

2.3.4.2 Logic

- ▸ Select the total accrued expenditures of the CFS document from the PM003 tables. The CFS Document Number is stored in **AP_CONTROL.Po_No**.
- ▸ The selected documents should have a Line Status (**AP_DETAIL.Line_Status**) of "PAID" or "INTRAN" or "OPEN". The documents should have an approved status, or the documents should be shell invoices that have originated from the receiving ticket or estimated accrual functionality (i.e. the **RT_No** should not be null or the **EA_Control_ID** should not be null).

2.3.5 Select the CFS Total Unpaid Accrued Expenditures of the Document

This function selects the total unpaid accrued expenditures of the document selected in Section 2.3.1. When the document is approved, but not disbursed, the status on the invoice reflects the status "OPEN".

2.3.5.1 Input

The input for this function includes the Vendor Invoice Transaction Screen (PM003) tables: **AP_CONTROL** and **AP_DETAIL**.

2.3.5.2 Logic

- • Select the total unpaid accrued expenditures of the CFS document from the PM003 tables and update the **CFS_UAE_Document_Total** on the Convert ACTDOC (**CONV_ACTDOC**) table. The CFS Document Number is stored in **AP_CONTROL.Po_No**.
- ▸ The selected documents should have a Line Status (**AP_DETAIL.Line_Status**) of "OPEN". The documents should have an approved status, or the documents should be shell invoices that have originated from the receiving ticket or estimated accrual functionality (i.e. the **RT_No** should not be null or the **EA_Control_ID** should not be null).

2.3.6 Compare Document Totals

This function compares the FIMA ACTDOC and CFS document totals of the document selected in Section 2.3.1.

‣ Compute the CFS undelivered orders balance and update the **CFS_UDO_Document_Total** on the Convert ACTDOC (**CONV_ACTDOC**) table. The CFS undelivered orders balance is the CFS total obligation amount minus the CFS total accrued amount.

‣ Compare the FIMA ACTDOC UDO with the CFS UDO.

‣ If the UDO balances match, then compare the FIMA ACTDOC UAE with the CFS UAE. Otherwise, record an error and continue with the next document in Section 2.3.1.

‣ If the UAE balances match, then proceed to the transaction accounting line reconciliation function, Section 2.3.7. Otherwise, record an error and continue with the next document in Section 2.3.1.

If the reconciliation fails in either document-level comparison, then write an error to the **Convert Errors** Table (**CONV_ERRORS**). Update the **CONV_ACTDOC.CFS_Reconcile_Flag** to "N" and the **CONV_ACTDOC.CFS_Match_Flag** to "Y".

2.3.7 Select the FIMA ACTDOC UDO and UAE for Each Accounting Line

This function selects the total undelivered orders balance and unpaid accrued expenditures balance for each open accounting line on the current FIMA document selected in Section 2.3.1.

‣ Select the total undelivered orders balance from **Convert ACTDOC ACCOUNT**. Group by:

- ‣ Org1_Code
- ‣ Org2_Code
- ‣ Org3_Code
- ‣ Org4_Code
- ‣ Org5_Code
- ‣ Org6_Code
- ‣ Org7_Code
- ‣ Project_Code
- ‣ Task_Code
- ‣ Object1_Code
- ‣ Object2_Code

‣ Select the total unpaid accrued expenditures balance from **Convert ACTDOC ACCOUNT** for the current FIMA Document Number and Document Type. Group by:

▸ Org1_Code
▸ Org2_Code
▸ Org3_Code
▸ Org4_Code
▸ Org5_Code
▸ Org6_Code
▸ Org7_Code
▸ Project_Code
▸ Task_Code
▸ Object1_Code
▸ Object2_Code

2.3.8 Select the CFS Total Obligation for Each Accounting Line

This function selects the total obligation amount for each ACCS of the CFS document selected in Section 2.3.1.

2.3.8.1 Input

The Purchase Order Transaction Screen (FM040) tables which hold the total obligation amount include: **PO_CONTROL**, **PO_ITEM**, and **PO_ACCOUNT**.

2.3.8.2 Logic

▸   Calculate the line item totals for each ACCS on the document.
▸   The following **PO_ACCOUNT** Table columns should be compared with the **Convert ACTDOC Account** Table (**CONV_ACTDOC_ACCOUNT**) columns with the same name:

▸ Org1_Code
▸ Org2_Code
▸ Org3_Code
▸ Org4_Code
▸ Org5_Code
▸ Org6_Code
▸ Org7_Code
▸ Project_Code
▸ Task_Code
▸ Object1_Code
▸ Object2_Code

Note: the document selected should be the latest open approved **Change Order Number** (**PO_CONTROL.Change_Order_No**).

2.3.9   Select the CFS Total Accrued Expenditures of Each Accounting Line

This function selects the total accrued expenditures for each ACCS of the CFS document selected in Section 2.3.1.

2.3.9.1 Input

The input for this function includes the Vendor Invoice Transaction Screen (PM003) tables: **AP_CONTROL** and **AP_DETAIL**.

2.3.9.2 Logic

▸   Calculate the line item totals for each ACCS on the document.
▸   The following **AP_DETAIL** columns should be matched with the **Convert ACTDOC Account** columns with the same name:

- ▸   Org1_Code
- ▸   Org2_Code
- ▸   Org3_Code
- ▸   Org4_Code
- ▸   Org5_Code
- ▸   Org6_Code
- ▸   Org7_Code
- ▸   Project_Code
- ▸   Task_Code
- ▸   Object1_Code
- ▸   Object2_Code

▸   Update the **CFS_Recon_Accrual_Total** on **CONV_ACTDOC** with the value calculated during the current Sub-Function.

2.3.10   Select the CFS Total Unpaid Accrued Expenditures of Each Accounting Line

This function selects the total unpaid accrued expenditures for each ACCS of the CFS document selected in Section 2.3.1.

2.3.10.1   Input

The input for this function includes the Vendor Invoice Transaction Screen (PM003) tables: **AP_CONTROL** and **AP_DETAIL**.

2.3.10.2 Logic

- ▸ Calculate the line item totals for each ACCS on the document.
- ▸ The following **AP_DETAIL** columns should be matched with the **Convert ACTDOC Account** columns with the same name:

  - ▸ Org1_Code
  - ▸ Org2_Code
  - ▸ Org3_Code
  - ▸ Org4_Code
  - ▸ Org5_Code
  - ▸ Org6_Code
  - ▸ Org7_Code
  - ▸ Project_Code
  - ▸ Task_Code
  - ▸ Object1_Code
  - ▸ Object2_Code

- ▸ Update the **CFS_Recon_UAE_Total** on **CONV_ACTDOC** with the value calculated during the current Sub-Function.

2.3.11   Compare Document Accounting Line Totals

This function compares the FIMA ACTDOC and CFS document accounting line item totals. If the totals match, then the Program Module proceeds to the Reconcile FIMA ACTDOC With CFS General Ledger Function.

- ▸ Compute the CFS undelivered orders balance. The CFS undelivered orders balance is the CFS obligation amount minus the CFS total accrued amount. Update the **CFS_Recon_UDO_Total** on **CONV_ACTDOC_ACCOUNT** for the current line.
- ▸ Compare the FIMA ACTDOC UDO with the CFS UDO.
- ▸ If the UDO balances match, then compare the FIMA ACTDOC UAE with CFS UAE. Otherwise, record an error and continue with the next document in Section 2.3.1.
- ▸ If the UAE balances match continue with the Reconcile FIMA ACTDOC With CFS General Ledger Function in Section 2.4. Otherwise, record an error and continue with the next document in Section 2.3.1.

If the reconciliation fails in either document-level comparison, then write an error to the **Convert Errors** Table (**CONV_ERRORS**). Update the **CONV_ACTDOC.CFS_Reconcile_Flag** to "N" and the **CONV_ACTDOC.CFS_Match_Flag** to "Y".

2.4   Reconcile FIMA ACTDOC With CFS General Ledger

This function compares FIMA ACTDOC UDO and UAE balances with CFS general ledger UDO and UAE account balances at both the document and document detail level.

The CFS undelivered orders balance for a document is calculated by summing the Credit Amount minus the Debit Amount for the 4801, 4871, and 4881 Accounts for all the transactions against a document.

The accounts that should be used for reconciling the unpaid accrued expenditures balance requires further investigation. It has been recommended that the CAMS Design and Conversion Team investigate the possibility of calculating the balance of the 4901, 4902, 4971, and 4981 Accounts. The CFS-FIMA Interface File provides the basis for the calculation of the document level account balances; however, the CFS-FIMA Interface does not record accomplishments. For accomplishments, the invoice Transaction Number appears on the accomplishment transaction.

The process for reconciling FIMA ACTDOC with the CFS General Ledger will be more clearly defined after the CAMS Design and Conversion Team resolves the issues regarding which accounts to use for the reconciliation.

2.4.1 *Select Crosswalk Documents for 2-Way Match Document General Ledger Reconciliation Processing*

This function selects the information inserted into the **CONV_2WAY_RECON** Table for 2-Way Match reconciliation processing. It selects all records in **CONV_2WAY_RECON** for the general ledger reconciliation processing.

2.4.2 *Select the FIMA ACTDOC UDO and UAE of the Document*

This function selects the undelivered orders and unpaid accrued expenditures balance of the current FIMA document selected in Section 2.4.1.

2.4.2.1 *Input*

The input for this function is the data in **CONV_2WAY_RECON**
and the **Convert ACTDOC** Tables.

2.4.2.2 Logic

- ► Select the total undelivered orders balance from **Convert ACTDOC** for the
current FIMA document.
- ► Select the total unpaid accrued expenditures balance from **Convert
ACTDOC** for the current FIMA document.

2.4.3 Select the CFS General Ledger Undelivered Orders Account Balance for the Document

This function selects the undelivered orders general ledger account balance in
the CFS General Ledger for the document selected in Section 2.4.1.

The **CONV_2WAY_RECON** Table contains all CFS document activity for the
document which has been recorded through the CFS-FIMA Interface. It contains
receiving ticket (RT), estimated accrual (EA), accounts payable (AP),
disbursement (ACCR, DISB), void invoice (APVOID), void payment (VP), and
payment correction (APC) transaction numbers associated with the document.
The Transaction Numbers provide the key to the CFS General Ledger
information.

2.4.3.1 Input

The **CFS General Ledger** (**TRIAL** Table) provides the CFS document-level
general ledger account balances for this function.

2.4.3.2 Logic

Select the Credit Amount minus the Debit Amount for the 4801, 4871, and 4881
Accounts for all the transactions against a document. This value should be
updated in the **CFS_UDO_Document_TRIAL_Total** on the Convert ACTDOC
(**CONV_ACTDOC**) table.

2.4.4 Select the CFS Unpaid Accrued Expenditures for the Document

This function selects the total accrued expenditures of the document. This value
should be updated in the **CFS_UAE_Document_TRIAL_Total** on the Convert

ACTDOC (**CONV_ACTDOC**) table. The specific criteria for this function are to be determined.

2.4.5 Compare Document Account Totals

This function compares the FIMA ACTDOC and CFS document-level totals.   The specific criteria for this function are to be determined.

2.4.6 Select the FIMA ACTDOC UDO and UAE for Each Accounting Line

This function selects the total undelivered orders and unpaid accrued expenditures balance for each open accounting line on the current FIMA document selected in Section 2.4.1. See Section 2.3.7 for details.

2.4.7 Select the CFS Undelivered Orders Account Balance for Each Accounting Line

This function selects the total undelivered orders account balance for each accounting line on the current CFS document selected in Section 2.4.1.

2.4.7.1 Input

The **CFS General Ledger** (**TRIAL** Table) provides the CFS document general ledger account balances for this function.

2.4.7.2 Logic

- ▸ Select the Transaction Numbers associated with the current CFS document number.
- ▸ Sum the Credit Amount minus Debit Amount for the 4801, 4871, and 4881 Accounts for all CFS General Ledger transactions associated with the document.

Update the **CFS_Recon_UDO_Trial_Total** on **CONV_ACTDOC** with the value calculated during the current Sub-Function.

2.4.8 Select the CFS Unpaid Accrued Expenditures Account Balance of Each Accounting Line

This function selects the total accrued expenditures account balance for each accounting line on the CFS document. The specific criteria for this function are to be determined.

Update the **CFS_Recon_UAE_Trial_Total** on **CONV_ACTDOC** with the value calculated during the current Sub-Function.

2.4.9 Compare Document Account Totals for Each Accounting Line

This function compares the FIMA ACTDOC document detail money field balances with the CFS General Ledger document detail account balances. The specific criteria for this function are to be determined.

2.4.10   Update **CONV_ACTDOC** *with Status of Module*

If both the Transaction and General Ledger data for the Two-Way Match document is successfully reconciled by the module, it updates the **CFS_Reconciled_Flag** column and the **CFS_Match_Flag** column with a value of 'Y' on **CONV_ACTDOC**. The Program Module also updates the **CFS_Document_No** on **CONV_ACTDOC** to equal the **CFS_Document_Number** value from crosswalk table for the current document.

If the document is matched to CFS data but not reconciled, the **CFS_Match_Flag** is set to 'Y' and the **CFS_Unrecon_Document_No** column is updated to equal the **CFS_Document_Number** value from crosswalk table for the current document.

3   Reconcile No-Match Documents Path

This path identifies the reconciliation process for CFS documents which have been designated as No-Match documents. No-Match documents differ from 2-Way Match documents in that there is no recorded obligation for them.

The reconciliation of No-Match documents involves 3 major functions:
- ‣   Crosswalk FIMA Document Number With CFS Document Number
- ‣   Reconcile FIMA ACTDOC With CFS Transaction Screens
- ‣   Reconcile FIMA ACTDOC With the CFS General Ledger

3.1   Process Flow for the Reconcile No-Match Documents Path

A process flow for this path is not currently available.

3.2   Crosswalk FIMA Document Number With CFS Document Number

See Section 2.2 for general information regarding crosswalking document numbers between FIMA and CFS.

3.2.1   Create Crosswalk Table

This function creates a temporary table to store the FIMA Document Number and Document Type as well as the corresponding CFS Transaction Number and General Ledger Transaction Number.

3.2.2 Logic

Create a temporary Oracle table (**CONV_NOWAY_RECON**) with the following
table description.

Table 2. Table Description for CONV_NOWAY_RECON		
Column Name	**Data Type**	**Column Description**
Fima_Document_Type	VARCHAR2(2)	The FIMA Document Type.
Fima_Document_No	VARCHAR2(9)	The FIMA Document Number.
Subsystem_Code	VARCHAR2(2)	The Subsystem Code for the transaction (i.e. the CFS module identifier).
Trans_Source	VARCHAR2(6)	The Transaction Source for the transaction (i.e. the CFS screen source identifier).
Gl_Trans_No	NUMBER	The General Ledger Transaction Number.
Trans_No	NUMBER	The Transaction Number.
Vendor_No	NUMBER(10)	Vendor Number associated with the transaction.
Vendor_Id	NUMBER(6)	Vendor ID associated with the transaction.
Invoice_No	VARCHAR(20)	Invoice Number associated with the transaction.
Sub_Invoice_No	NUMBER(4)	Sub Invoice Number associated with the transaction.

3.2.3 Output

The output of this function is the **CONV_NOWAY_RECON** Table.

3.2.4 Insert Crosswalk Data

This function extracts the required data to populate the
CONV_NOWAY_RECON Table, including data from the following
FIM_DOC_DETAIL fields:

- ▸ **Real_FIMA_Doc_Type**
- ▸ **Real_FIMA_Doc_No**
- ▸ **Subsystem_Code**
- ▸ **Trans_Source**
- ▸ **GL_Trans_No**
- ▸ **Trans_No**
- ▸ **Vendor_No**
- ▸ **Vendor_Id**
- ▸ **Vendor_Invoice_No**
- ▸ **Vendor_Sub_Invoice_No**

Note that the selected values correspond with the table description presented in
Table 2. The table contains all CFS-FIMA Interface transactions for No-Match
documents.

3.2.5 Delete Crosswalked Documents Which Are Closed

This function deletes the documents in the **CONV_NOWAY_RECON** Table
which do not appear in the **Convert ACTDOC** Table and which do not have
FIMA accounting line conversion errors.

This function also updates the **Convert Errors** Table (**CONV_ERRORS**) with a
reconciliation error if the documents to be reconciled contain ACCS conversion
errors. The document reconciliation requires that FIMA accounting detail
successfully converts to CFS accounting detail.

3.3   Reconcile FIMA ACTDOC With CFS Transaction Screens

See Section 2.3 for more information on reconciling FIMA ACTDOC with CFS
Transaction Screens. The No-Match reconciliation processing works similar to
the 2-Way Match reconciliation processing. The major differences between the
two paths include: 1) there is no undelivered orders reconciliation for No-Match
documents, and 2) the Crosswalk Transaction Number is the key for No-Match
reconciliation, as opposed to the Obligation Document Number in the 2-Way
Match processing.

3.4   Reconcile FIMA ACTDOC With CFS General Ledger

See Section 2.4 for more information on reconciling FIMA ACTDOC with the CFS General Ledger. The No-Match reconciliation processing works similar to the 2-Way Match reconciliation processing. The major difference between the two paths for this reconciliation is that there is no reconciliation of undelivered orders document account balances. Also, Vendor data will be selected from either the **EA_CONTROL** or **AP_CONTROL** tables, instead of the **PO_CONTROL** table.

4   Assumptions

- ▸   The CFS-FIMA Interface Table **FIM_DOC_DETAIL** is assumed to be a reliable source of CFS accounts payable document activity.

- ▸   The automated accounts payable open document conversion reconciliation process only reconciles open accounts payable documents in FIMA and CFS. The open documents on FIMA ACTDOC provide the information on open documents. The open document reconciliation only includes FIMA Document Types 01 - 49.

- ▸   The document matching between the two systems is accomplished by matching the Document Number, Document Type, accounting codes and undelivered orders and unpaid accrued expenditures amounts.

5   Issues

- ▸   The CAMS Design and Conversion Team will continue to work with the Financial Reporting Division and the CAMS General Ledger Team to resolve the open issues with reconciling ACTDOC document detail to the CFS General Ledger.
  Issue Owner(s): CAMS Design & Conversion Team, Financial Reporting Division, CAMS General Ledger Team

- ▸   Estimated Accrual functionality will be modified for the ASAP Interface to require a vendor *payment* address for No-Match transactions. This modification affects the FIMA to CFS automated accounts payable open document conversion of No-Match documents. The program module designs will be modified to incorporate this change to the Estimated Accrual functionality.
  Issue Owner(s): CAMS Design and Conversion Team

▸   The Compare FIMA ACTDOC and CFS Production Program Module
          Deisgn should update all **Vendor_No** and **Vendor_Id** information for all
          matched documents, reconciled or not.
          <u>Issue Owner</u>: CAMS Design & Conversion Team

▸   The CAMS Design and Conversion Team will investigate the best options
          for recording reconciliation total descriptions for reporting.
          <u>Issue Owner</u>: CAMS Design & Conversion Team

<u>Appendix A</u>

Document Modifications

Vendor Processing:

Due to new information regarding how CFS handles payments and payment addresses, this module must change how it identifies and validates the vendor(s) associated with each document. The module should select the **Vendor_No** and **Vendor_ID** from the Purchase Order Tables, and update the **Vendor_No** and **Purchase_Vendor_ID** fields respectively on **Convert ACTDOC** with the selected data. Then using the **Vendor_No** the Program Module queries the CFS vendor tables and selects the most recent, active **Vendor_ID** with an address type of "PAYMNT" to retrieve the payment address data for the vendor. This value updates the **Payment_Vendor_ID** field on **Convert ACTDOC**.

Reconcile FIMA ACTDOC With CFS General Ledger:

The Program Module will compute the sum the CFS 48X1 and 49X1 accounts (credit amount minus debit amount) for the selected document. The sum of the 48X1 and 49X1 accounts must reconcile with the FIMA ACTDOC undelivered orders and unpaid accrued expenditures money fields, respectively in order for the selected document to be reconciled with the CFS General Ledger.

To obtain the sum of the CFS accounts,

- ▸ Select the **FIMA Document Number** from **Convert ACTDOC**.
- ▸ Select all the **Transaction Numbers** (**Trans_no**) and **Transaction Sources** (**trans_source**) from **CONV_2WAY_RECON** where the **FIMA Document Number** is equal to the number selected in the previous step.
- ▸ Query the CFS General Ledger (**TRIAL**) for each **Transaction Number** and **Transaction Source** combination from the previous step where **Transaction Source** does not equal 'DISB'. Sum all occurrences of 48X1 and 49X1. (Note: Sum is the credit amount minus the debit amount).
- ▸ Where **Transaction Source** is equal to 'AP', record the **Bureau Code** (**Bureau_Code**), **Original Document Number** (**Org_Document_No**), and **Original Document Type** (**Org_Document_Type**).
- ▸ Query the CFS General Ledger (**TRIAL**) for each **Bureau Code**, **Original Document Number**, and **Original Document Type** combination from the previous step and where **Transaction Source** does not equal 'AP'. (Note: This query should use the trial_fm017B index). Sum all occurrences of 48X1 and 49X1.
- ▸ For a document to reconcile, the **Undelivered_Orders** must equal the sum of the 48X1 accounts AND the **Unpaid_Accrued_Exp** must equal the sum of the 49X1 accounts.